Application # FA1- 00613-1 (CIRM Institute)

PROPOSAL:

This application proposes CIRM funding for 20.1% of a 176,590 gross square foot (gsf) five-story building (one level below grade) currently under construction at this institution. The CIRM portion of the 105,265 assignable square foot (asf) project consists of one entire floor (21,114 asf ; 34,587 gsf) with a total cost of $41,834,478, of which CIRM funding is requested for $29,646,274. The building will contain an interdisciplinary program involving faculty from life sciences departments. The applicant notes the new facility includes core laboratories to provide technical and developmental support for the programs including computational and bioinformatics analysis of stem cells, advanced cell separation technologies, bioengineering for stem cell growth including organ scaffolds, advanced and vital microscopy, advanced mouse genetics, and vector production. At occupancy, the facility will house 15 research teams (PIs) of which nine will be new recruits. The plan includes space for "young faculty development" intended to accommodate three or four such candidates. The core facilities are to complement the extensive existing cores available to support stem cell research.

Completion of the project is scheduled for May 2010.

Space Summary Table

Space Category	Amount of Space (asf)	Percent of Total	ASF per PI at 15
Lab, Lab Support, PI Offices	12,650	60%	843
Core Facilities	5,602	27%	373
Other Offices	1,825	9%	122
Administration and Other Support	1,037	5%	69
Total	21,114	100%	1,408

STAFF ANALYSIS

VALUE:

Costs:

Cost Summary Table

	Total Amount	Amount/ PI
Building	$32,412,723	$2,160,848
Group 2 Equipment	$9,421,755	$628,117
Total	$41,834,478	$2,788,965
CIRM Amount	$29,646,274	$1,976,418
Applicant Amount	$12,188,204	$812,547

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The estimated total project cost of $41,834,478 includes building costs of $30,945,242, project management and administrative costs of $1,467,481, no contingency set aside, and Group 2 Equipment to be purchased of $9,421,755. The overall cost is $937/gsf, which is in the mid to upper range in comparison to other CIRM Institute applicants. There are economies of scale that benefit the CIRM portion of a much larger project.

The amount budgeted for equipment represents a cost of $272/gsf ,which is more than twice the $122/gsf average for CIRM Institute applications. Existing equipment valued at $768,000 will be relocated to the new space.

The CIRM cost for PI laboratory and related space (excluding cores) is $1,654,785 per PI, which is close to the $1,610,927 per PI average for the CIRM Institute category.

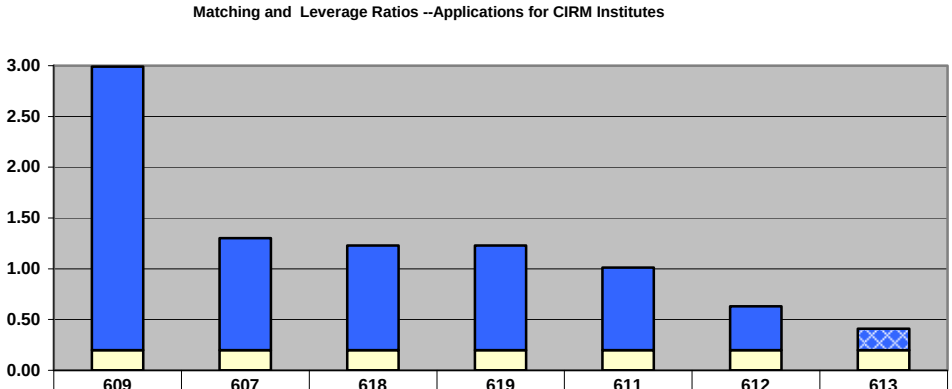
Sustainability & Innovation

The project may achieve a LEED certification at the Silver level, but the application notes it is one point short of achieving that level. At a minimum, the building will meet the equivalent rating of "certified" under the LEED standards.

The applicant indicated that interactive space, energy efficient ventilation systems and the use of day lighting techniques in the design were innovation elements of the project. These elements are typical for this type of building.

LEVERAGE:

The application includes leverage of $6,258,949. This represents the institutional investment in excess of the required match after conforming to the allowable amount for fees and administrative cost. The CIRM funding to leverage ratio is 1:0.21. When both matching and leverage funds are considered, this ratio rises to 1:0.41. The following table compares the leverage for this application (crosshatched) to the other applicants in the category of CIRM Institutes.



	609	607	618	619	611	612	613
Leverage	2.79	1.10	1.03	1.03	0.81	0.43	0.21
Matching (.20)	0.20	0.20	0.20	0.20	0.20	0.20	0.20

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URGENCY:

The building shell construction started in June 2007. The applicant has completed planning and is awaiting the outcome of CIRM funding decisions before releasing bids. Because the CIRM component is part of a larger science building, bidding and other construction activities are dependent on the progress made on the larger project which is currently under construction. The construction of the CIRM-funded space is planned to start in August 2008 with construction to be completed in January 2010.

The project qualifies for priority consideration under the FWG evaluation criteria because completion is projected less than two years from approval of the grant.

The applicant's team for managing delivery of the project is experienced in similar types of laboratory facilities. The design team is well versed in science lab projects and has successfully overseen many California-based science laboratories. The team is well qualified and has the necessary skills and experience to successfully complete a project of this magnitude.

SHARED RESOURCES:

The facility includes six new critical core laboratories to provide technical and developmental support for the programs including: (a) large scale computational and bioinformatics analysis of stem cells; (b) advanced cell separation technologies; (c) bioengineering for stem cell growth including organ scaffolds; (d) advanced and vital microscopy; (e) advanced mouse genetics; (f) vector production; and (g) a dedicated vivarium.

The applicant's existing cores include a hESC GMP laboratory, advanced and vital microscopy, mouse genetics core, a bioengineering core and a computational/ bioinformatics facility. Other significant shared cores include a microarray/CGH and a vector core, a molecular screening shared resource center, a vivarium and nude/SCID mouse core and multimodal imaging cores.

The applicant has made significant investments in equipment and facilities that will be available to CIRM programs without adding CIRM cost.

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Cores:

- hESC GMP Laboratory
- CIRM Shared Research Laboratory including the hESC Good Tissue Practices Laboratory
- hESC Core Bank
- hESC Derivation Laboratory
- Cytogenics Laboratory
- Flow Cytometry Cores
- Gene Expression Core
- Mass Spectrometry Core
- Molecular Screening Shared Resource
- Zebra Fish Core
- Behavioral Genetics Core
- AIDS BSL3 Biocontainment Core
- Human Tissue Procurement Bank
- Preclinical Imaging Facility
- Nude/SCID Mouse Core Facility
- PET and PET/CT Human Imaging Facility
- UCLA CARE Center and CFAR Clinical Cores

FUNCTIONALITY:

The proposed facility design responds to program needs by providing efficient space that has a full range of flexible laboratories, shared support and core facilities that are part of a larger facility. Support space is provided in an amount equal to the planned laboratory space. PI offices are close to laboratories and cores are located in the basement and on various floor of the building. Opportunities for interaction are somewhat limited and those that are included in the design are dispersed and may not afford a desirable level of interaction.

SUMMARY OF ISSUES FOR THE FACILITIES WORKING GROUP EVALUATION

Cost: How will the FWG weigh the Group 2 equipment costs, which are more than twice the average of other applications on a square foot basis? The amount includes over $6.2 million for core facilities.

Leverage: How will the FWG weigh the relatively low leverage for a facility of modest size that offers less square footage per PI than other proposals?

Urgency: Is there a risk that the CIRM-funded space may be subject to delays related to delivering the overall project?

Functionality: How will the FWG weigh the relatively small amount of space per PI and the relative lack of interactive spaces?